FEDERAL SUPPLY CLASS
5306

RATIONALE

REDRAWING OF FIGURE TO MAKE READABLE, ADDITION OF GEOMETRICAL TOLERANCES, ADDING ALL TOLERANCES, DELETING HARDNESS REQUIREMENT, AND BRINGING NOTES UP TO DATE.

NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS9638, NOTICE 1. THIS SAE STANDARD MAY RETAIN THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

ANY REQUIREMENTS ASSOCIATED WITH QUALIFIED PRODUCTS LISTS (QPL) MAY CONTINUE TO BE MANDATORY FOR DOD CONTRACTS. REQUIREMENTS RELATING TO QPLS HAVE NOT BEEN ADOPTED BY THE SAE FOR THIS STANDARD AND ARE NOT PART OF THIS SAE DOCUMENT.

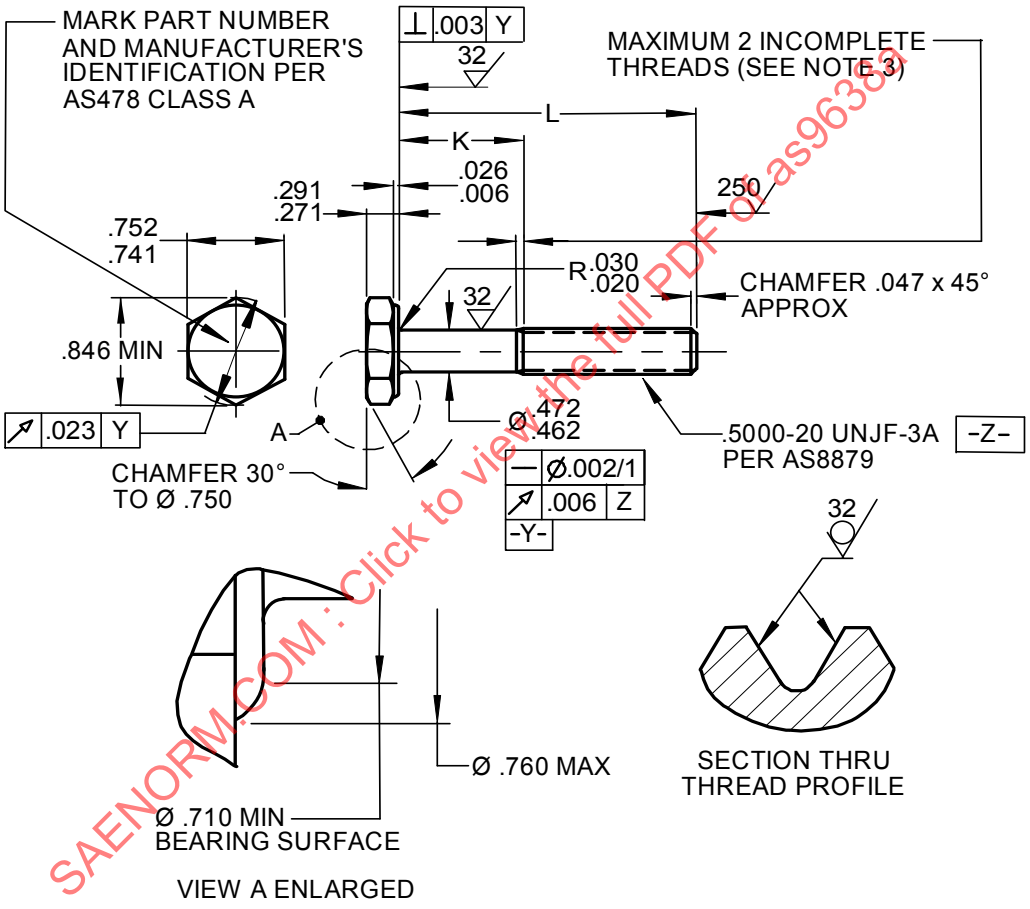
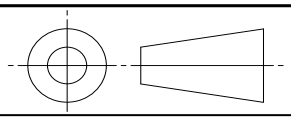


FIGURE 1 - BOLT

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS9638A

THIRD ANGLE PROJECTION



ISSUED 1998-08 REAFFIRMED 2007-06 REVISED 2013-01

CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS7461

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) BOLT, MACHINE - HEXAGON HEAD,
PD SHANK, TITANIUM AMS4967 (UNS R56400),
.500-20 UNJF-3A

TABLE 1 - PART NUMBERS AND DIMENSIONS

PART NUMBER	L	K	APPROX WEIGHT LB/100	PART NUMBER	L	K	APPROX WEIGHT LB/100
				MS9638-31	2.990 - 3.010	1.690 - 1.750	10.71
				MS9638-32	3.115 - 3.135	1.815 - 1.875	11.10
MS9638-03	.740 - .760	.105 - .125	4.53	MS9638-33	3.240 - 3.260	1.940 - 2.000	11.44
MS9638-04	.802 - .822	.105 - .125	4.71	MS9638-34	3.365 - 3.385	2.065 - 2.125	11.79
MS9638-05	.865 - .885	.105 - .125	4.89	MS9638-35	3.490 - 3.510	2.190 - 2.250	12.13
MS9638-06	.928 - .948	.105 - .125	5.07	MS9638-36	3.615 - 3.635	2.315 - 2.375	12.47
MS9638-07	.990 - 1.010	.105 - .125	5.24	MS9638-37	3.740 - 3.760	2.440 - 2.500	12.82
MS9638-08	1.052 - 1.072	.105 - .125	5.42	MS9638-38	3.865 - 3.885	2.565 - 2.625	13.16
MS9638-09	1.115 - 1.135	.105 - .125	5.59	MS9638-39	3.990 - 4.010	2.690 - 2.750	13.50
MS9638-10	1.178 - 1.198	.105 - .125	5.76	MS9638-40	4.115 - 4.135	2.815 - 2.875	13.85
MS9638-11	1.240 - 1.260	.105 - .125	5.93	MS9638-41	4.240 - 4.260	2.940 - 3.000	14.20
MS9638-12	1.302 - 1.322	.105 - .125	6.11	MS9638-42	4.365 - 4.385	3.065 - 3.125	14.54
MS9638-13	1.365 - 1.385	.105 - .125	6.28	MS9638-43	4.490 - 5.010	3.190 - 3.250	14.88
MS9638-14	1.428 - 1.448	.128 - .188	6.45	MS9638-44	4.615 - 4.635	3.315 - 3.375	15.22
MS9638-15	1.490 - 1.510	.190 - .250	6.62	MS9638-45	4.740 - 4.760	3.440 - 3.500	15.57
MS9638-16	1.552 - 1.572	.252 - .312	6.79	MS9638-46	4.865 - 4.885	3.565 - 3.625	15.92
MS9638-17	1.615 - 1.635	.315 - .375	6.96	MS9638-47	4.990 - 5.010	3.690 - 3.750	16.26
MS9638-18	1.678 - 1.698	.378 - .438	7.14	MS9638-48	5.115 - 5.135	3.815 - 3.875	16.60
MS9638-19	1.740 - 1.760	.440 - .500	7.31	MS9638-49	5.240 - 5.260	3.940 - 4.000	16.94
MS9638-20	1.802 - 1.822	.502 - .562	7.48	MS9638-50	5.365 - 5.385	4.065 - 4.125	17.29
MS9638-21	1.865 - 1.885	.565 - .625	7.65	MS9638-51	5.490 - 5.510	4.190 - 4.250	17.63
MS9638-22	1.928 - 1.948	.628 - .688	7.82	MS9638-52	5.615 - 5.635	4.315 - 4.375	17.98
MS9638-23	1.990 - 2.010	.690 - .750	8.00	MS9638-53	6.740 - 6.760	4.440 - 4.500	18.32
MS9638-24	2.115 - 2.135	.815 - .875	8.34	MS9638-54	5.865 - 5.885	4.565 - 4.625	18.66
MS9638-25	2.240 - 2.260	.940 - 1.000	8.69	MS9638-55	5.990 - 6.010	4.690 - 4.750	19.01
MS9638-26	2.365 - 2.385	1.065 - 1.125	9.04				
MS9638-27	2.490 - 2.510	1.190 - 1.250	9.38				
MS9638-28	2.615 - 2.635	1.315 - 1.375	9.72				
MS9638-29	2.740 - 2.760	1.440 - 1.500	10.06				
MS9638-30	2.865 - 2.885	1.565 - 1.625	10.44				